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| 10/700,080 | 11/03/2003 | David Lubkeman | ABUA-0060/B030240 | 3732 |
| 23377 | 7590 | 03/07/2005 | EXAMINER | |
| WOODCOCK WASHBURN LLP ONE LIBERTY PLACE, 46TH FLOOR 1650 MARKET STREET PHILADELPHIA, PA 19103 | | | TSAI, CAROL S W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2857 | |

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,080

Applicant(s)

LUBKEMAN ET AL.

Examiner

Carol S. Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 26-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-25 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☒ Claim(s) 1-48 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/04/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

- I. The species best illustrated by Fig. 4 (claims 1-25)
- II. The species best illustrated by Fig. 6 (claims 26-35).
- III. The species best illustrated by Fig. 5 (claims 36-48).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is deemed generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

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showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Michael Rickin on February 17, 2005 a provisional election was made without traverse to prosecute the invention of group I, claims 1-25. Affirmation of this election must be made by applicant in replying to this Office action. Claims 26-48 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-8, 11-14, and 17-20, and 23-25 are rejected under 35 U.S.C. 102(a) as being anticipated by U. S. Patent No. 6,405,134 to Smith et al.

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With respect to claims 1 and 14, Smith et al. disclose a method for electric utility storm outage management, the method comprising: determining an interconnection model of an electric utility power circuit, the power circuit comprising power circuit components (see col. 3, lines 4-32); determining information indicative of weather susceptibility of the power circuit components (see col. 3, lines 33-65; col. 7, lines 36-47; and col. 8, line 60 to col. 9, line 9); determining a weather prediction (see col. 3, line 66 to col. 4, line 20); and determining a predicted maintenance parameter based on the interconnection model, the weather susceptibility information, and the weather prediction (see col. 2, lines 25-32; col. 3, lines 15-32; col. 4, lines 21-32; and col. 8, line 60 to col. 9, line 9).

As to claims 2, 3, and 17, Smith et al. also disclose an observation of the power circuit (see Abstract, lines 13-18; col. 2, lines 22-32; and col. 3, lines 15-32).

As to claims 4 and 18, Smith et al. also disclose determining at least one of power line component age, power line pole age, power line component ice susceptibility, and power line component wind susceptibility (see col. 7, lines 36-47 and col. 8, line 60 to col. 9, line 9).

As to claims 5 and 19, Smith et al. also disclose at least one of predicted wind speed, a predicted storm duration, a predicted snowfall amount, a predicted icing amount, and a predicted rainfall amount (see Figs. 8-11; col. 2, lines 19-24; and col. lines 13-31).

As to claim 6, Smith et al. also disclose a predicted maintenance crew requirement (see col. 2, lines 30-32 and col. 4, lines 25-32).

As to claim 7, Smith et al. also disclose a predicted maintenance crew person-day requirement based on a predicted damage type (see col. 4, lines 21-32).

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As to claims 8 and 20, Smith et al. also disclose a prediction of a location of power consumers affected by the predicted power circuit damage (see col. 2, lines 22-32; col. 3, lines 22-25; and col. 7, lines 36-47).

As to claims 11, 12, 23, and 24, Smith et al. also disclose a predicted amount of damage to the power circuit comprising at least one of a predicted number of broken power poles, a predicted number of downed power lines, and a predicted number of damaged power transformers (see col. 8, line 60 to col. 9, line 9).

As to claims 13 and 25, Smith et al. also disclose maintaining a computing system that predicts the maintenance parameter based on the interconnection model, the weather susceptibility information, and the weather prediction and updating the computing system based on historical information (see col. 2, lines 25-31 and col. 3, lines 3-32).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of U. S. Publication 2002/00354497 to Mazereeuw et al.

As noted above, with respect to claims 9 and 21, Smith et al. disclose the claimed invention, except for a prediction of a time to repair the predicted power circuit damage.

Mazereeuw et al. teach a prediction of a time to repair the predicted power circuit damage (see paragraph 0032).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith et al.'s method to include a prediction of a time to repair the predicted power circuit damage, as taught by Mazereeuw et al., in order that information of estimated time of repair can be passed along to customers.

8. Claims 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of U. S. Publication 2004/0158772 to Pan et al.

As noted above, Smith et al. disclose the claimed invention, except for a prediction of a cost to repair the power circuit damage.

Pan et al. teach a prediction of a cost to repair the power circuit damage (see paragraphs 0055 and 0058).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith et al.'s method to include a prediction of a cost to repair the power circuit damage, as taught by Pan et al., in order that each likely power component failure, a probability of failure and a total cost associated with the failure can be determined.

Allowable Subject Matter

9. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mizumaki disclose a communications processing section in a managing device transmitting a request for a transmission of generated power quantity information via the Internet to an electric power generator to be managed.

Chen et al. disclose a system and a method remotely monitoring electrical and/or mechanical equipment where a user may interactively alter the operation of a piece of equipment remotely.

Baron, SR. et al. disclose a system for providing real-time site specific weather information comprising a weather alert manager that receives meteorological data and combines the meteorological data with a geographical grid covering a predefined geographic area to produce a storm profile for the storms within the geographical area, wherein the geographic grid partitions the geographic area into a plurality of cells.

Intriligator et al. disclose a system and method of forecasting space weather (at Earth or another location) based on identifying complex patterns in solar, interplanetary, or geophysical data.

Mamo discloses a system for the generation of energy based upon the differences in the atmospheric pressure at geographically spaced apart sites, referred herein as the "Atmospheric Cold Megawatt" energy producing system of the invention (hereinafter "ACM") comprising at least one long conduit, in the order of many miles long, preferably of at least two portions of different internal areas capable of conducting significant amounts of air there through.

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Lagod et al. disclose an energy management system including one or more electric power generators located at or near a consumer's premises, to provide power which is dedicated to the needs of that consumer.

Markson et al. disclose a lightning detection system for detecting and locating an initial discharge of an initial leader stroke of a lightning flash.

Sumic discloses a method and apparatus for determining the probable location of a fault causing a power outage in a power distribution system having a power distribution grid and a control station, the power distribution grid comprising a power source connected to a plurality of terminal nodes by grid branches, and corresponding protective devices, whose operation minimizes the deleterious effects of power outages.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for TC 2800 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (571) 272-1585 or (571) 272-2800.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be

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used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet.

Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

A handwritten signature in black ink, appearing to read "Carol S. W. Tsai".

Carol S. W. Tsai
Patent Examiner
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02/23/05